SEQUENCE LISTING

<110> HOSHINO, Tatsuo
OJIMA, Kazuyuki
SETOGUCHI, Yutaka

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<141> 2000-03-03

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<151> 1999-03-09

<150> EP 00101666.6
<151> 2000-02-01

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<170> PatentIn Ver. 2.1

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Gly Asn Phe Leu Asp Ile Leu Ser Ala Arg Thr Gly Glu Glu His Ala
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Lys Tyr Arg Glu Lys Tyr Gly Ser Thr Leu Arg Phe Ala Gly Ile Ala
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Gly Ala Pro Val Leu Asn Ser Thr Asp Pro Lys Val Phe Asn His Val
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Met Lys Glu Ala Tyr Asp Tyr Pro Lys Pro Gly Met Ala Ala Arg Val
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Leu Arg Ile Ala Thr Gly Asp Gly Val Val Thr Ala Glu Gly Glu Ala
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Ser Ala Gly Glu Lys Lys Ala Thr Arg Leu Glu Thr Glu Gly Val Asp
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Val Lys Asp Trp Val Gly Arg Ala Thr Leu Asp Val Met Ala Leu Ala
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Tyr Val Ala Phe Val Gly Leu Thr Asp Gly Phe Ala Pro Thr Leu Asp
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Ser Phe Lys Ala Ile Met Trp Asp Phe Val Pro Tyr Phe Arg Thr Met
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Lys Arg Arg His Glu Ile Pro Leu Thr Gln Gly Leu Ala Val Ser Arg
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Arg Val Gly Ile Glu Leu Met Glu Gln Lys Lys Gln Ala Val Leu Gly
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Ser Ala Ser Asp Gln Ala Val Asp Lys Lys Asp Val Gln Gly Arg Asp
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Ile Leu Ser Leu Leu Val Arg Ala Asn Ile Ala Ala Asn Leu Pro Glu
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Ile Cys Gln Ile Asp Thr Asp Met Pro Thr Leu Asp Glu Leu Asn Ala
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ttc agt ctt tac ctc gct ccg agg cga tct tca ctg tat aac ctt cag   149
Phe Ser Leu Tyr Leu Ala Pro Arg Arg Ser Ser Leu Tyr Asn Leu Gln
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acc gat ccg aaa gtc ttc aac cat gtg atg aaa gaa gcc tac gac tat   341
Thr Asp Pro Lys Val Phe Asn His Val Met Lys Glu Ala Tyr Asp Tyr
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ccg aaa cct ggt atg gcc gct cga gtg ctc aga att gct acc gga gat   389
Pro Lys Pro Gly Met Ala Ala Arg Val Leu Arg Ile Ala Thr Gly Asp
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ggt gtt gtt acg gcg gaa ggt gaa gct cat aag cga cat cga agg atc   437
Gly Val Val Thr Ala Glu Gly Glu Ala His Lys Arg His Arg Arg Ile
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atg atc ccc tct ctg tcc gct cag gcc gtt aag tcg atg gtc cca att   485
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Phe Leu Glu Lys Gly Met Glu Leu Val Asp Lys Met Met Glu Asp Ala
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gct gag aag gat atg gcc gtg gga gag tcg gcc ggt gaa aag aag gca   581
Ala Glu Lys Asp Met Ala Val Gly Glu Ser Ala Gly Glu Lys Lys Ala
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acc aga ctc gag acc gaa gga gtc gat gta aag gat tgg gtc ggt cga   629
Thr Arg Leu Glu Thr Glu Gly Val Asp Val Lys Asp Trp Val Gly Arg
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gct act ctg gac gtc atg gct ctt gca gga ttt gac tat aag agc gac   677
Ala Thr Leu Asp Val Met Ala Leu Ala Gly Phe Asp Tyr Lys Ser Asp
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tcg ctc cag aac aag acc aat gag ctc tat gtc gct ttt gtc gga ctt   725
Ser Leu Gln Asn Lys Thr Asn Glu Leu Tyr Val Ala Phe Val Gly Leu
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acc gat ggg ttt gct cct acc ttg gac tcg ttc aag gct atc atg tgg   773
Thr Asp Gly Phe Ala Pro Thr Leu Asp Ser Phe Lys Ala Ile Met Trp
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gat ttt gta cct tac ttc cga act atg aaa cgg aga cat gag ata cct   821
Asp Phe Val Pro Tyr Phe Arg Thr Met Lys Arg Arg His Glu Ile Pro
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ttg act caa gga tta gca gtt tcc cga cga gtt ggg atc gag ctt atg   869
Leu Thr Gln Gly Leu Ala Val Ser Arg Arg Val Gly Ile Glu Leu Met
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gat aaa aag gat gtt caa ggt cgg gat atc cta agt ctc cta gtg aga   965
Asp Lys Lys Asp Val Gln Gly Arg Asp Ile Leu Ser Leu Leu Val Arg
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gca aac atc gcc gcc aac ctg cct gaa tct caa aag ctg tcc gat gag   1013
Ala Asn Ile Ala Ala Asn Leu Pro Glu Ser Gln Lys Leu Ser Asp Glu
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gag gta ctc gct cag atc agt aac ctg tta ttt gct gga tat gaa act   1061
Glu Val Leu Ala Gln Ile Ser Asn Leu Leu Phe Ala Gly Tyr Glu Thr
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tct tcg aca gtc ttg aca tgg atg ttt cac cga ctc tca gaa gac aaa   1109
Ser Ser Thr Val Leu Thr Trp Met Phe His Arg Leu Ser Glu Asp Lys
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gcc gtt cag gat aaa ctt cga gaa gaa att tgt cag atc gac acg gat   1157
Ala Val Gln Asp Lys Leu Arg Glu Glu Ile Cys Gln Ile Asp Thr Asp
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atg cct acg cta gac gaa ctt aat gcg ttg cct tat ctc gaa gcg ttt   1205
Met Pro Thr Leu Asp Glu Leu Asn Ala Leu Pro Tyr Leu Glu Ala Phe
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gtt aag gag tct ctt cgt cta gac cct cct agt ccg tat gct aac cgt   1253
Val Lys Glu Ser Leu Arg Leu Asp Pro Pro Ser Pro Tyr Ala Asn Arg
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Glu Cys Leu Lys Asp Glu Asp Phe Ile Pro Leu Ala Glu Pro Val Ile
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Gly Arg Asp Gly Ser Val Ile Asn Glu Val Arg Ile Thr Lys Gly Thr
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Met Val Met Leu Pro Leu Phe Asn Ile Asn Arg Ser Lys Phe Ile Tyr
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gga gaa gat gca gaa gaa ttc aga ccg gag agg tgg ctt gag gac gta   1445
Gly Glu Asp Ala Glu Glu Phe Arg Pro Glu Arg Trp Leu Glu Asp Val
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Thr Asp Ser Leu Asn Ser Ile Glu Ala Pro Tyr Gly His Gln Ala Ser
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Gln Val Lys Pro Val Glu
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<210> 18
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Nested walking primer for cloning of the TPI terminator

<400> 18
ggatctgtct ctgcctccaa ctgcaag 27

<210> 19
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primary walking primer for cloning of the TPI promoter

<400> 19
gggtcaatgt cggcagcgag aagccca 27

<210> 20
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Nested walking primer for cloning of the TPI promoter

<400> 20
atgtactcgg tagcactgat caagtag 27

<210> 21
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Sense primer
for construction of the TPI promoter cassette

<400> 21
gcggccgcat ccgtctcgcc atcagtct 28

<210> 22
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Antisense
primer for construction of the TPI promoter
cassette

<400> 22
cctgcaggtc tagagatgaa taaatataaa gagt 34

<210> 23
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Sense primer
for construction of the TPI terminator cassette

<400> 23
cctgcaggta aatatatcca gggattaacc ccta 34

<210> 24
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Antisense
primer for construction of the TPI terminator
cassette

<400> 24
ggtacccgtg cgcagtcgac cgagacat 28

<210> 25
<211> 35
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Degenerate
sense primer for cloning of the AMY gene

<220>
<221> misc_feature
<222> 15
<223> n is a or c or g or t

<220>
<221> misc_feature
<222> 21
<223> n is a or c or g or t

<220>
<221> misc_feature
<222> 27
<223> n is a or c or g or t

<220>
<221> misc_feature
<222> 30
<223> n is a or c or g or t

<400> 25
gaytayathc arggnatggg nttyrmngcn athtg 35

<210> 26
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Degenerate
antisense primer for cloning of the AMY gene

<220>
<221> misc_feature
<222> 6
<223> n is a or c or g or t

<220>
<221> misc_feature
<222> 9
<223> n is a or c or g or t

<220>
<221> misc_feature
<222> 24
<223> n is a or c or g or t

<220>
<221> misc_feature
<222> 30

<223> n is a or c or g or t

<400> 26
tgytcngtnc crtartadat datnggdatn ccrtc 35

<210> 27
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Sense primer
for construction of a partial AMY cassette

<400> 27
ccgcggcatt gatacctcta ccccgt 26

<210> 28
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Antisense
primer for construction of a partial AMY cassette

<400> 28
gcggccgcct gcaatcctgg atccaccg 28

<210> 29
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Sense primer
for construction of the AST cassette

<400> 29
tctagaatgt tcatcttggt cttgctca 28

<210> 30
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Antisense
primer for construction of the AST cassette

<400> 30
cctgcaggtc attcgaccgg cttgacct 28

<210> 31
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Sense primer
for confirmation of integration at the AMY locus
by PCR analysis

<400> 31
ctctcctgtt cacaaaaaca 20